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608.01(m). As a result of this preliminary amendment, Claims 23-30 have been added and Claims 3-6, 9-12, and 15-22 have been amended. Accordingly, Claims 1-30 are presented for examination. No new matter is being added herewith.

The specific changes to the specification and the amended claims are shown on a separate set of pages attaches hereto and entitled VERSION WITH MARKINGS TO SHOW CHANGES MADE, which follows the signature page of this Amendment. On this set of pages, insertions are underlined and deletions are struck through.

Conclusion

Should there be any questions concerning this application, the Examiner is invited to contact the undersigned agent at the telephone number appearing below. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410. A duplicate copy of this sheet is enclosed.



Respectfully submitted,

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Dated: Dec. 27, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

The paragraph beginning at page 7, line 13 has been amended as follows:

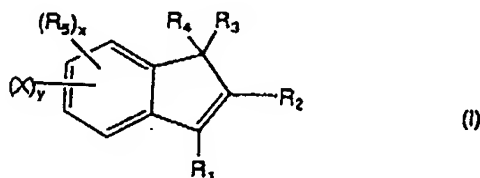
The present invention relates to the following items (1) to (22).

(1) A resin composition (a) comprising the following polymers (A), and (B) and/or (C):

(A) a polymer comprising one or more kinds of indene and indene derivatives represented by the following general formula (I);



(B) a polymer comprising polystyrene or a polystyrene derivative; and

(C) a polymer comprising a monomer copolymerizable with styrene or a styrene derivative:



(wherein R_1 , R_2 , R_3 , R_4 , and R_5 may be the same or different, and each represents a hydrogen atom; a monovalent hydrocarbon group containing a nitrogen atom, an oxygen atom or a silicon atom; an alkyl group having 1 to 6 carbon atoms; or a monovalent aromatic hydrocarbon group. X represents a hydrogen atom, a halogen atom, an acyl group, an alkoxy group or a nitrile group. x represents 0 or an integer of 1 to 4, and y represents an integer of 1 to 4, where $x + y = 4$.)

(2) The resin composition (a) according to (1), wherein a diphenylsilicone (D) and/or a phenolic antioxidant (E) are/is added to the resin composition comprising the polymers (A), and (B) and/or (C).

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(3) The resin composition (a) according to (1) or (2), wherein the saturated water absorption is 0.4% or less, and the birefringence in stretching the resin composition by 200% is in the range of -2×10^{-6} to 2×10^{-6} .

(4) The resin composition (a) according to any one of (1) to (3), wherein the weight-average molecular weight of the polymer (A) is lower than 80000.

(5) The resin composition (a) according to any one of (1) to (4), wherein the weight-average molecular weight(s) of the polymer (B) and/or the polymer (C) are/is 50000 or higher.

(6) The resin composition (a) according to any one of (1) to (5), wherein the content of the polymer (A) is 30 to 90% by weight of the total of the resin composition (a).

(7) A resin composition (b) comprising the following polymers (F), (G) and (H):



(F) a polymer comprising one or more kinds of indene and indene derivatives represented by the above general formula (I);

(G) a polymer comprising polystyrene or a polystyrene derivative; and

(H) a graft polymer having a structure where a polymer comprising at least one kind of indene and indene derivatives represented by the general formula (I) bonds to a side chain of a polymer comprising a monomer copolymerizable with styrene or a styrene derivative.

(8) The resin composition (b) according to (7), wherein a diphenylsilicone (D) and/or a phenolic antioxidant (E) are/is added to the resin composition comprising the polymers (F), (G) and (H).

(9) The resin composition (b) according to (7) or (8), wherein the saturated water absorption is 0.4% or less, and the birefringence in stretching the resin composition by 200% is in the range of -2×10^{-6} to 2×10^{-6} .

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(10) The resin composition (b) according to any one of (7) to (9), wherein the weight-average molecular weight of the polymer (F) is 4000 or higher.

(11) The resin composition (b) according to any one of (7) to (10), wherein the weight-average molecular weights of the polymer (G) and the polymer (H) are 50000 or higher.

(12) The resin composition (b) according to any one of (7) to (11), wherein the content of the polymer (F) is 30 to 90% by weight of the total of the resin composition (b).



(13) A resin composition (c) comprising the following polymers (I) and (J), diphenylsilicone (D), and a phenolic antioxidant (E):

(I) a polymer comprising one or more kinds of indene and indene derivatives represented by the above general formula (I), wherein the polymer has a heterocyclic structure in a side chain thereof; and

(J) a polymer comprising styrene or a styrene derivative, and a monomer copolymerizable with styrene or a styrene derivative, wherein the polymer has a carboxyl group and/or a phenolic hydroxyl group in a side chain thereof.

(14) The resin composition (c) according to (13), wherein the saturated water absorption is 0.4% or less, and the birefringence in stretching the resin composition by 200% is in the range of -2×10^{-6} to 2×10^{-6} .

(15) The resin composition (c) according to (13) or (14), wherein the content of the heterocyclic structure in the polymer (I) is 0.01 to 5 mol% of the total of the resin composition (c), and the content of the carboxyl group and/or the phenolic hydroxyl group in the polymer (J) is 0.01 to 5 mol% of the total of the resin composition (c).

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(16) The resin composition (c) according to any one of (13) to (15), wherein the molar ratio of the heterocyclic structure to the carboxyl group and/or the phenolic hydroxyl group is 0.1 to 10.0.

(17) The resin composition (c) according to any one of (13) to (16), wherein the content of the polymer (I) is 30 to 90% by weight of the total of the resin composition (c).

(18) The resin composition (c) according to any one of (13) to (17), wherein the addition amount of the diphenylsilicone (D) is 0.01 to 1.0% by weight of the total of the resin composition (c), and the addition amount of the phenolic antioxidant (E) is 0.1 to 3.0% by weight of the total of the resin composition (c).

(19) A molding material obtained by molding a resin composition selected from the resin composition (a) according to (1), the resin composition (b) according to (7) and the resin composition (c) according to (13).



(20) A sheet obtained from a resin composition selected from the resin composition (a) according to (1), the resin composition (b) according to (7) and the resin composition (c) according to (13).

(21) A film obtained from a resin composition selected from the resin composition (a) according to (1), the resin composition (b) according to (7) and the resin composition (c) according to (13).

(22) An optical part using the molding material, the sheet or the film according to any one of (19) to (21).

The paragraph beginning at page 12, line 26 has been amended as follows:

The indene derivatives for use in the above polymer (A) include those represented by the above general formula (I), wherein R_1 , R_2 , R_3 , R_4 , and R_5 , ~~and~~ R_6 may be the same or different,

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and each represents a hydrogen atom; a monovalent hydrocarbon group containing a nitrogen atom, an oxygen atom or a silicon atom; an alkyl group having 1 to 6 carbon atoms; or a monovalent aromatic hydrocarbon group.

The paragraph beginning at page 16, line 22 has been amended as follows:



α -substituted alkylstyrenes that may be employed include, for example, α -methylstyrene, α -ethylstyrene, α -propylstyrene, α -n-butylstyrene, α -isobutylstyrene, α -t-butylstyrene, α -n-pentylstyrene, α -2-methylbutylstyrene, α -3-methylbutylstyrene, ~~α -t-butylstyrene~~, α -t-pentylstyrene, α -n-hexylstyrene, α -2-methylpentylstyrene, α -3-methylpentylstyrene, α -1-methylpentylstyrene, α -2,2-dimethylbutylstyrene, α -2,3-dimethylbutylstyrene, α -2,4-dimethylbutylstyrene, α -3,3-dimethylbutylstyrene, α -3,4-dimethylbutylstyrene, α -4,4-dimethylbutylstyrene, α -2-ethylbutylstyrene, α -1-ethylbutylstyrene, α -cyclohexylstyrene, and the like. Those listed hereinbefore are simply examples and α -substituted alkylstyrenes are not limited thereto. These may be used singly or in combination with two or more.

The paragraph beginning at page 22, line 10 has been amended as follows:

Catalysts for use in radical polymerization are not particularly limited, and publicly known catalysts may be employed. Such catalysts include, for example, peroxides such as benzoyl peroxide, ~~lauryl~~ lauroyl peroxide, methyl ethyl ketone peroxide and the like. Those listed hereinbefore are simply examples, and the catalysts are not limited thereto. These may be used singly or in combination with two or more.

The paragraph beginning at page 24, line 3 has been amended as follows:

In the resin composition (a), the weight-average molecular weight of the polymer (A) is preferably lower than 80000, more preferably lower than 40000. If the weight-average molecular

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weight of the polymer (A) is ~~lower~~ higher than 80000, fluidity and transparency of the resin composition (a) tend to decrease.

The paragraph beginning at page 30, line 6 has been amended as follows:

The graft polymer (H) for use in the resin composition (b) has a structure where a polymer comprising one or more kinds of indene and indene derivatives represented by the general formula (I) bonds to a side chain of a polymer comprising a monomer copolymerizable with styrene or a styrene derivative. That is, the graft polymer (H) has a backbone unit of the polymer comprising a monomer copolymerizable with styrene or a styrene derivative and branch units of the polymer comprising one or more kinds of indene and indene derivatives represented by the general formula (I).



The paragraph beginning at page 37, line 4 has been amended as follows:

In the resin composition (c) of the present invention, the above polymer (J) comprises styrene or a styrene derivative, and a monomer copolymerizable with styrene or a styrene derivative, and it has a carboxyl group and/or a phenolic hydroxyl group in a side chain thereof.

The paragraph beginning at page 37, line 8 has been amended as follows:

~~Monomers copolymerizable with styrene or a styrene derivative~~ Styrene derivatives for use in the polymer (J) include, for example, nucleus-substituted alkylstyrenes, nucleus-substituted aromatic styrenes, α -substituted alkylstyrenes, β -substituted alkylstyrenes, nucleus-substituted alkoxy styrenes, alkyl vinyl ethers, aromatic vinyl ethers, and the like, and specifically include the same monomers as the styrene monomers for use in the polymer (B) of the resin composition (a).

The paragraph beginning at page 51, line 16 has been amended as follows:

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Placed in a 100-ml flask were 14.0 g of styrene, 5.0 g of 4-methylstyrene, 1.0 g of butyl acrylate and 0.1 g of benzoyl peroxide, and the mixture was stirred to dissolve. Then, 60 g of distilled water and 0.01 g of calcium phosphate were added thereto, and the mixture was allowed to react at 70 °C for 12 hours with stirring. A granular polymer thus obtained was isolated and washed with hydrochloric acid. Subsequently, the polymer was dried at 50 °C for about 2 hours to obtain a polymer (BC). The weight-average molecular weight of the polymer obtained was 240000.

In the claims:

Claims 3-6, 9-12, and 15-22 have been amended as follows:



Claim 3. (Amended) The resin composition (a) according to claim 1 ~~or 2~~, wherein the saturated water absorption is 0.4% or less, and the birefringence in stretching the resin composition by 200% is in the range of -2×10^{-6} to 2×10^{-6} .

Claim 4. (Amended) The resin composition (a) according to ~~any one of claims 1 to 3~~ claim 1, wherein the weight-average molecular weight of the polymer (A) is lower than 80000.

Claim 5. (Amended) The resin composition (a) according to ~~any one of claims 1 to 4~~ claim 1, wherein the weight-average molecular weight(s) of the polymer (B) and/or the polymer (C) are/is 50000 or higher.

Claim 6. (Amended) The resin composition (a) according to ~~any one of claims 1 to 5~~ claim 1, wherein the content of the polymer (A) is 30 to 90% by weight of the total of the resin composition (a).

Claim 9. (Amended) The resin composition (b) according to claim 7 ~~or 8~~, wherein the saturated water absorption is 0.4% or less, and the birefringence in stretching the resin composition by 200% is in the range of -2×10^{-6} to 2×10^{-6} .

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Claim 10. (Amended) The resin composition (b) according to ~~any one of claims 7 to 9~~claim 7, wherein the weight-average molecular weight of the polymer (F) is 4000 or higher.

Claim 11. (Amended) The resin composition (b) according to ~~any one of claims 7 to 10~~claim 7, wherein the weight-average molecular weights of the polymer (G) and the polymer (H) are 50000 or higher.

Claim 12. (Amended) The resin composition (b) according to ~~any one of claims 7 to 11~~claim 7, wherein the content of the polymer (F) is 30 to 90% by weight of the total of the resin composition (b).



Claim 15. (Amended) The resin composition (c) according to claim 13 ~~or 14~~, wherein the content of the heterocyclic structure in the polymer (I) is 0.01 to 5 mol% of the total of the resin composition (c), and the content of the carboxyl group and/or the phenolic hydroxyl group in the polymer (J) are/is 0.01 to 5 mol% of the total of the resin composition (c).

Claim 16. (Amended) The resin composition (c) according to ~~any one of claims 13 to 15~~claim 13, wherein the molar ratio of the heterocyclic structure to the carboxyl group and/or the phenolic hydroxyl group is 0.1 to 10.0.

Claim 17. (Amended) The resin composition (c) according to ~~any one of claims 13 to 16~~claim 13, wherein the content of the polymer (I) is 30 to 90% by weight of the total of the resin composition (c).

Claim 18. (Amended) The resin composition (c) according to ~~any one of claims 13 to 17~~claim 13, wherein the addition amount of the diphenylsilicone (D) is 0.01 to 1.0% by weight of the total of the resin composition (c), and the addition amount of the phenolic antioxidant (E) is 0.1 to 3.0% by weight of the total of the resin composition (c).

Claim 19. (Twice Amended) A molding material for use in optical parts, the molding material being obtained by molding a resin composition ~~selected from the resin composition (a)~~ according

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to claim 1, ~~the resin composition (b) according to claim 7 and the resin composition (c) according to claim 13.~~

Claim 20. (Twice Amended) A sheet for use in optical parts, the sheet being obtained from a resin composition ~~selected from the resin composition (a) according to claim 1, the resin composition (b) according to claim 7 and the resin composition (c) according to claim 13.~~

Claim 21. (Twice Amended) A film for use in optical parts, the film being obtained from a resin composition ~~selected from the resin composition (a) according to claim 1, the resin composition (b) according to claim 7 and the resin composition (c) according to claim 13.~~

Claim 22. (Amended) An optical part using the molding material, the sheet or the film according to ~~any one of claims 19 to 21~~ claim 19.

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